

1998

Motives for adult sport participation.

Ursula. Miletic
University of Windsor

Follow this and additional works at: <http://scholar.uwindsor.ca/etd>

Recommended Citation

Miletic, Ursula, "Motives for adult sport participation." (1998). *Electronic Theses and Dissertations*. Paper 2794.

This online database contains the full-text of PhD dissertations and Masters' theses of University of Windsor students from 1954 forward. These documents are made available for personal study and research purposes only, in accordance with the Canadian Copyright Act and the Creative Commons license—CC BY-NC-ND (Attribution, Non-Commercial, No Derivative Works). Under this license, works must always be attributed to the copyright holder (original author), cannot be used for any commercial purposes, and may not be altered. Any other use would require the permission of the copyright holder. Students may inquire about withdrawing their dissertation and/or thesis from this database. For additional inquiries, please contact the repository administrator via email (scholarship@uwindsor.ca) or by telephone at 519-253-3000ext. 3208.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

**Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600**

UMI[®]

Motives for Adult Sport Participation

By

Ursula Miletic

A Thesis

**Submitted to the Faculty of Graduate Studies and Research
through the School of Human Kinetics in Partial
Fulfillment of the Requirements for the Degree
of Master of Human Kinetics at the
University of Windsor**

**Windsor, Ontario, Canada
1998**

© Ursula Miletic



National Library
of Canada

Acquisitions and
Bibliographic Services

395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque nationale
du Canada

Acquisitions et
services bibliographiques

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

Our file Notre référence

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-52613-5

Canada

Abstract

Continued physical activity throughout the adult years is a desirable goal. An improved quality of life and better health are the results of a physically active lifestyle. It is important as physical educators to understand the needs and motives of the adult population in order to meet their needs when conducting exercise programs and motivating adults to begin or maintain a physically active way of life. This study was an attempt to discover some of the motives responsible for adult participation in recreational sport. A questionnaire was developed to investigate possible participation motives. Thirty-seven men and forty-five women players in the Windsor Adult Mixed Volleyball League completed the questionnaire in addition providing information regarding relationship status and childcare responsibilities. Results identified five emerging motives for sport participation: sport improvement, competition, fitness, affiliation and stress reduction. Fitness and stress reduction were the strongest motives for adult participation in this group of adults. No statistically significant differences were found between the men and the women on any of the motives except stress reduction. Women rated this motive as more important than did men. No statistically significant differences were found between the adults with childcare responsibilities and those without those responsibilities. Also relationship status had no statistical significance when rating participation motives. These findings suggest that adults, regardless of gender and family status, are motivated to participate in recreational sport by a desire to maintain or increase physical fitness levels and as a means of stress reduction.

Table of Contents

Chapter I

Review of Literature

Adults in Recreational Sport 1

Differences Among Female and Male
Adults in Recreational Sport 7

Motivation for Adult Participation in
Recreational Sport 11

Chapter II

Statement of Problem 18

Chapter III

Method

Participants 20

Instrumentation 20

Procedures 22

Chapter IV

Results

Descriptive Statistics 23

Scale Reliability 23

Factor Analysis 30

Analysis of Variance 35

Chapter V

Discussion 46

Possible Areas for Future Study 54

Appendix A- The Questionnaire 59

References 66

List of Tables

Table 1.	Ego Orientation Motive, Correlation Matrix	25
Table 2.	Psychological Well-being Motive, Correlation Matrix	26
Table 3.	Physical Health Motive, Correlation Matrix	27
Table 4.	Social Affiliation, Correlation Matrix	28
Table 5.	Task Orientation, Correlation Matrix	29
Table 6.	Total Variance Explained	31
Table 7.	Communalities	33
Table 8.	Analysis of Variance, Sport Improvement Factor	36
Table 9.	Analysis of Variance, Competition Factor	37
Table 10.	Analysis of Variance, Fitness Factor	38
Table 11.	Analysis of Variance, Stress Reduction Factor	39
Table 12.	Analysis of Variance, Affiliation Factor	40
Table 13.	Mean Values for Sport Improvement Motivation	41
Table 14.	Mean Values for Competition Motivation	42
Table 15.	Mean Values for Fitness Motivation	43
Table 16.	Mean Values for Affiliation Motivation	44
Table 17.	Means and Standard Deviations for Original Adult Sport Participation Motives	Appendix B

Chapter I

Review of Literature

Adults in Recreational Sport

Early and middle adulthood marks a period of great change and adjustment. Adults choose whether or not to marry and have children. Careers at this time are of paramount importance. Given that the early and middle adult years are extremely busy and demanding, the need for leisure, as a time to explore meaning and self-discovery, gains importance.

Lexically, leisure has been defined as "time when one is free from the need to do any work" (Webster's Encyclopedia Dictionary, 1988). A study by Freysinger (1995) on the meaning of leisure to adults, found leisure to be perceived as a time of freedom, where adults had the choice to do what they wanted, how they wanted and when they wanted. Adults felt there were two types of leisure, leisure that was self-oriented and leisure that was other-oriented. Freysinger found that "through these two types of leisure, adults try to balance social expectations and individual needs, and in doing so adapt to the developmental concerns and issues of middle adulthood"(p.71). Leisure was seen as a way of interacting and sharing things with others. It was viewed as a way of spending quality family time and developing closeness within the family. Leisure was also seen as a way of making time to be with friends or to make new friends, as a time for autonomy from others, a time of learning and development, and a time of self-expression.

These adult perspectives must be juxtaposed with evidence that as age increases participation in sport and recreation tends to decrease (Smith & Theberge, 1987). Participation in more strenuous activities declines with age more rapidly than participation in the more moderate forms of sport and recreation. However, it has been suggested that the decline in participation in sport and recreation activities occurs at a much swifter rate than the decline of physiological abilities (Smith & Theberge, 1987)

indicating that the decline is more a matter of choice than physical necessity. One interesting finding (Smith & Theberge, 1987) was that participation in sport and physical recreation decreased with age, but the intensity of participation (measured by frequency of participation) increased. Older adults tended to participate in fewer activities than their younger counterparts, but they augmented their involvement in the activities that they chose.

Research on physical activity and sport as leisure in middle adulthood is sparse. The exact years defined as "middle adulthood" differ among researchers. The participants in Morgan's (1986) study of athletes and nonathletes in the middle years were described as having a mean age of 38 while the participants in Freysinger's (1995) study of leisure and development for women and men in mid-life were 36 - 43 years old. Rosenberg (1986) defines late middle-age as occurring between the ages of 55 - 64. The few studies available have shown that as age increases, during middle adulthood, participation in sport decreases (Rudman, 1986), a finding consistent with the overall lifespan trend reported by Smith and Theberge (1987). The age effect was stronger for team sports than for individual sports. Also, Rudman (1986) found that sport involvement decreased with marriage, particularly among those in the 18 to 34 age group. Having children, however, had a strong positive effect on certain types of unorganized sport involvement within the 35 to 54 age group (Rudman, 1986). Family oriented sports allowed families to share time together and all could participate. Clearly, the relationship between physically active leisure participation and changing personal and family responsibilities is a complex one.

Adult participants in sport as leisure must overcome many barriers or structural constraints. Often special arrangements for childcare must be made. Scheduling problems are another form of obstacle. Financial constraints may also be of concern. "Participation results in the absence of or negotiation through structural constraints. If structural constraints are sufficiently strong, the outcome will be non-participation" (Henderson & Bialeschki (1993,p.232). Henderson and Bialeschki (1993) explored the

relationships among constraints, preferences and participation in a sample of 59 women. The average age of the participants was 31 years; 32% were married and 68% were single or divorced. Over 70% of the women sampled did not have children. The data were collected through personal interviews using both open and close ended questions. The women responded to questions about participation and non-participation with reference to these recreational activities: mass media, visiting friends, the outdoors, sports, cultural activities and hobbies. Non-participation was defined as not participating in the activity in the past 12 months.

It was found that individual and/or dual sports and team sports had with the highest level of non-participation, a finding consistent with that of Rudman (1986). After identifying the activities with the greatest amount of non-participation, interviews were conducted and subjects were asked about their interest in the activities, past involvement, perceptions of the activities and their intentions of participating in those activities again. From these interviews the authors were able to identify the constraints to the participation experienced by the women. Henderson and Bialeschki (1993) labeled the constraints mentioned by the subjects as antecedent and intervening. Antecedent constraints were defined by the researchers as "attitudes associated with an a priori recreation activity" (p.231), whereas intervening constraints were defined as "constraints that immediately impact upon one's ability or opportunity to participate" (p.231). An example of an antecedent constraint might be interest in an activity while an example of an intervening constraint might be lack of time. They found that both these forms of constraints interacted with each other. For example one subject, when elaborating on her non-participation in sport, felt that females could be as good as males in the sports mentioned in the questionnaire, but that they are not encouraged by family and society in the same way that boys are. The authors interpreted this perception to mean that the woman felt that an "antecedent stereotype of activity based on gender resulted in an intervening lack of opportunity for females as they were growing up" (Henderson &

Bialeschki, 1993, p. 238). In this way, antecedent and intervening constraints interacted in the socialization of girls. Interest, perception of ability or skill, and type of participation (competitive vs. purely recreational) were also mentioned as constraints to participation in sport, as were age and stage of life. The authors presented a model of leisure constraints based on the women's experiences. The model showed an interplay between preferences and participation with negotiation and decision making moderating this process. Preferences were shown in the model to be affected by antecedent constraints, and participation was shown to be affected by intervening constraints. Antecedent and intervening constraints were shown to have an effect on each other and on negotiation and decision making.

Men, too, may experience constraints and different preferences for activities. McPherson (1986) suggests lack of time due to competing family and work responsibilities and lack of opportunity as possible factors contributing to the involvement of men and women in physical activity. Intervening constraints such as scheduling problems also can influence decision-making and participation. For the adult, continued sport participation becomes the result of careful planning. Decisions must be made about the type of leisure activities that most interest adults. The availability of activities must be taken into consideration. The amount of spare time and scheduling difficulties must be overcome. Finally for adults with young children, childcare must be factored into the decision making process.

Other studies support Rudman's (1986) findings that changing adult responsibilities influence sport participation. While the adults volleyball players that participated in this study were active in recreational sport, playing games once a week for an eight month season, it appears that this type of regular participation is not the norm. McPherson (1986), concluded that Canadian adults between the ages of 25 and 34 are not highly active as participants in sport. This is consistent with the findings of Ostrow (1982), who found that at the age of 19 a downward trend in sport occurred. Participation then

maintained a plateau and at the age of 64, another downward trend in participation in physical activity took place. He remarked that those two ages marked both the entry and exit respectively from the working world. Ostrow (1982) further has suggested that "age seems to function as a socially constructed category defining appropriate role behaviours at specific points in the life cycle." This age grading may cause older adults to end their sport participation simply because they believe that society feels it inappropriate for them to still participate in sport. For younger adults the end of their teens corresponds to the end of high school and, therefore, an end to readily available opportunities and the legitimacy of youthful play.

Social norms that dictate age appropriate behaviour may not be the only cause for disengaging from sport. Smith (1986) discussed the costs and rewards of participating in athletics and these costs and rewards are perceived differently at different times of life. Staying in an activity is partially based on the outcome (rewards minus the costs) of the activity. People are attracted to sport for reasons such as skill improvement, the excitement of competition, increased physical fitness, affiliation, feelings of mastery, and recognition and approval from others. Fear of failure, excessive pressure, dislike of the coach, difficulties with teammates, boredom and excessive time and energy costs have been shown to be related to dropping out of sport. In a study by Koukouris (1994), former advanced and elite athletes were interviewed to determine their reasons for leaving competitive sport. These adults gave reasons such as increasing demands of time, money and energy in training, the negative effects on their social and cultural lives and relationships, sport injuries, and the impact of their jobs on their training times. It was found that most athletes left sport voluntarily for one or more of these reasons. It is not known how non-elite athletes describe the reasons for their departure from sport.

Given that sport participation is highest in the early years, it is of interest to understand the motives for participation at that time since they will strongly influence future decision-making. Smith (1978) examined the differences in socialization into

sport by males and females. The author looked at the young athletes' perceptions of the influence of role models on their sport involvement. Over 1000 athletes involved in summer performance and training camps were administered questionnaires investigating the role of significant others in their sport involvement. Physical education teachers or coaches were seen by both girls and boys as most responsible for generating interest in sport. More girls than boys named school physical educators or coaches or same sex parents as responsible for initial interest, while boys named same-sex peers as responsible for this initial interest. Girls perceived stronger encouragement than boys from these reference groups.

Scanlan & Lewthwaite (1986) examined the social psychological aspects of competition for young male wrestlers. They tried to determine some possible factors that could contribute to the enjoyment of competitive sport. Results showed that boys who perceived that their parents and coaches were happy with their overall wrestling performance experienced more enjoyment over the season. Also boys who perceived less negative pressure from their significant others enjoyed themselves more. When examining perceived ability, it was found that younger boys who perceived themselves as more able enjoyed themselves more.

Scanlan and Simons (1992) state that it is the desire for enjoyment or fun that is a motivating force for children's participation in sport. Lack of enjoyment is frequently given as a reason for dropping out. In non-competitive settings for adults, it is possible that similar motivations for participation or non-participation will persevere.

Some adults defy social trends and the increasing demands of adult life and continue to compete in sport. Masters athletic competitions are growing in number. Older adults are more active now than their counterparts two decades ago (Hall, Slack, Smith & Whitson, 1991). Even older adults are continuing to participate in sport into their senior years. In the Maryland Senior Olympic Games, the number of participants doubled from 300 in 1980 to more than 600 in 1984 (Zeigler & Michael, 1985). Today in the U.S.

250,000 athletes compete at qualifying meets for the privilege of participating in the Senior Olympics (Hirshberg, 1996). These athletes boasted that "the competition is quite keen. Everyone wants to bring an Olympian to his knees. And that just makes it more fun" (p.26), "it's a tremendous social event", and "some want to win a medal, but most just want to be there"(p.30). Other possible motives for participation in physical activity that have been suggested are achievement, aesthetics, appearance, coping, health, and social motives (Heitmann, 1986). McPherson (1986), has suggested that the peer group is influential in maintaining sport involvement, a finding that indicates either a continuation or a re-discovery of one of youth's important motives for sport participation. Some adults, despite changes in their lives, do maintain their levels of youthful involvement in physical activity. Others do not. Why is this so?

Differences Between Female and Male Adults in Recreation and Sport

There may be gender differences in the sport or recreation experience. Freysinger (1995), in interviewing middle-aged adults on their perceptions of leisure, found that gender was a factor that shaped leisure meanings. She found that women, especially those who were married or had children, placed an emphasis on the need for time away from the requirements of family life. Men on the other hand felt the need for affiliation with their children and family. Freysinger proposed that this difference supported the idea that "women and men enter middle adulthood from different stances and confronting different psychological issues"(p.80). In Freysinger's study men and women differed in another aspect. While perceived choice was a common recognition for both males and females, the perceived range of choice differed for the men and women. Freysinger showed that women's leisure was formed by their relationships with others to a different extent than males. Research has suggested that women who are married and who had

children in their twenties focus on individuation, autonomy, and agency in middle adulthood. Freysinger's study showed that it is difficult for married women who are parents to participate in leisure activities because of the way society has defined female norms. The idea of putting others' needs first is central to the gender differences found. Women struggle with balancing the needs of their family with their own needs. As a result leisure takes on a different meaning for women.

Women also experience significant barriers to recreation. In a study by Henderson Stalnaker & Taylor (1988), 500 females between the ages of 18 and 66 were mailed a questionnaire consisting of the Bem Sex Role Inventory, barriers to recreation participation, and participation in recreation activities and demographic items. Bem's Sex Role Inventory classified participants into one of four possible sex-role orientations (masculine, feminine, androgynous, and undifferentiated). The inventory contained items that depicted culturally sex-typed characteristics. Participants were classified as masculine depending on how strongly they endorsed the masculine items (e.g., being aggressive) and rejected the feminine items (e.g., being affectionate). Participants were classified as feminine if they strongly endorsed feminine items and rejected masculine items. Those who endorsed both masculine and feminine items strongly were classified as androgynous and those who did not endorse either masculine or feminine items were classified as undifferentiated. The women named ten barriers: time concerns, unawareness, decision-making, body image, family concerns, interest, social inappropriateness, lack of money, lack of skills, and facilities unavailable. When comparing the four sex-role personality types to the barriers, a statistically significant relationship was found between personality type and five factored barriers. The five barriers were unawareness, interest, decision-making, skills and body image. Women with stereotypic masculine personalities did not see the barrier of unawareness as being as strong as the other three groups of women. Decision making also was not a barrier for women with stereotypic masculine personalities. The barrier of skill was not important

to those women who were classified as masculine and androgynous. Interest in recreation activities and body image were barriers for women with stereotypic and undifferentiated personalities. In general women with stereotypic masculine personalities seemed to perceive fewer barriers to recreation than the other three groups. Women with androgynous personalities differed only slightly from the women with masculine personalities. Those women with undifferentiated personalities experienced the greatest barriers to participation. The authors suggest that although some barriers can be related to stereotypic sex-role types, further research is necessary to understand the constraints facing women.

Many women participate in the sport or recreation experience despite existing barriers. Are there gender differences in the way that females participate in recreation or athletics? Some research shows that girls lack confidence in physical activity and certain achievement situations. "Lack of confidence in their own abilities may cause females to avoid situations which precipitate this lack of confidence" (Corbin, Landers, Feltz, & Senior, 1983, p. 407).

College age males and females took part in a study by Weinberg and Ragan (1979). These students participated under different conditions in a pursuit rotor task. The conditions were competing against a standard of excellence (based on prior well established norms), competing in a face to face situation, and a noncompetitive situation. The participants in the face to face competition and competition against a standard of excellence conditions received either false success or failure feedback during competition. Upon completion of the task, the subjects completed a three item questionnaire assessing intrinsic motivation. A behavioural measure of intrinsic motivation was also obtained by asking subjects if they would volunteer to do this task again in another experiment. The results showed that males volunteered for more time in the face-to-face competition and in the competition against a standard condition than males not competing at all. Females in the different competitive conditions showed no

differences in the time volunteered for future studies. This suggests that males enjoy competitive situations more than females, to the extent that they would give up their free time in order to compete against others. In a recreational setting then, it might be fair to say that the males could be participating for more competitive reasons than females.

Gill, Gross, Huddleston & Shifflett (1984), investigated sex differences in performance expectancies, actual performance, perceived ability and attributions in a competitive setting. Results showed that males predicted more wins than females in competition. However, both males and females predicted times that were slightly better than their actual times. Also it was found that female times improved more than the male times in the competition situation. Females when competing against males were likely to give high perceived ability ratings regardless of whether they won or lost.

Similar findings were reported by Corbin, Landers, Feltz & Senior (1983). In this study investigating sex differences in performance estimates, males made higher performance estimates than females, but there were no significant differences in actual performance between males and females. The authors felt that it was not male boastfulness that was responsible for the higher performance estimates in males, but perhaps the low self-confidence sometimes exhibited by females that accounted for these differences. Possibly low self-confidence could act as a barrier to participation for women in the recreational setting. Henderson and Bialeschki (1993) state that one's perception of ability or skill can influence activity level. People who are successful at an activity continue to participate whereas those who aren't quit.

The literature shows that the female leisure experience differs from the male experience. Factors such as child care responsibilities and social role expectations define the leisure experience differently for females. Females are challenged by a series of barriers such as body image, social inappropriateness and family concerns when considering participation in leisure activities. Lack of confidence may also cause women

to avoid certain types of leisure experiences. Possible differences between males and females should be considered in any study of adult participation in physical activity.

In summary, while age is correlated to sport participation, it is not related causally. Rather, the correlation reflects different life events that dominate different phases of life. In this study, the clear effect of gender was combined with that of familial responsibility to a significant other and to children to create three independent variables: gender, responsibility to another, and childcare responsibility.

Motivation for Adult Participation in Recreational Sport

Decreases in sport participation occur among children as well as among adults at specific critical ages. Children under the age of 12 do not drop out of competitive sport in great numbers but when children enter their teens participation drops off suddenly (Gould & Horn, 1984). Some individuals maintain their involvement into their high school and college years. When looking at the adherence of individuals to sport, the examination of motivation and achievement behaviour has been of paramount importance in the literature. It is also important to note that different athletes may attach different meanings to achievement and that success may be perceived differently by different individuals.

Duda (1989) examined the relationship between goal perspective, participation and persistence in sport. Duda looked at two goal orientations. They were task or mastery goal orientation and ego or social comparison goal orientation. Task or mastery goal orientation refers to an individual's perception of competence (e.g., are my skills improving? Am I getting better?). In contrast, ego or social comparison goals refer to an individual's perception of his or her performance in relation to the performance of others, or other socially based norms (e.g., how did I perform compared to the others on my team?).

The subjects in Duda's study were 871 high school students. They were divided into five groups: 1) those involved in organized and recreational sport, 2) those involved in organized sport only, 3) those involved in recreational sport only, 4) those who dropped out of sport, and 5) those who were never involved in sport. In a classroom setting the subjects were given a questionnaire in which scenarios showed athletes being successful or failing in individual/team, and mastery/social comparison based competitive situations. The subjects also answered questions on present and past sport involvement in recreational and organized sport activities. There were differences in the success condition between the subjects who were involved in organized sport and the other subjects. Those involved in organized sport had higher mastery and social comparison goal perspectives. Dropouts, those who never participated in sport and those participating in only organized sport, placed less emphasis on mastery based success than social comparison based success. It was also found that groups 1 and 2 showed higher preference for group and individual mastery based success and group and individual social comparison based success than dropouts or non-involved subjects. Simply said, both goal orientations were higher for those individuals who were participating in sport than those who were not.

Gill (1988), in a study investigating the relationship of competitiveness and achievement orientation to participation in sport and nonsport activities, reported similar results. In her study participants were both high school and university students. All participants completed two questionnaires, the Sport Orientation Questionnaire or SOQ (which measures three goal orientations: competitiveness, win orientation, and task or goal orientation) and the Work and Family Orientation Questionnaire or the WOFO (which yields four measures: mastery or task orientation, work orientation, competitiveness, and personal unconcern). It was found that win orientation was an important discriminator for competitive sport participation and that goal orientation is more characteristic of noncompetitive sport participants. The competitiveness measures

were the strongest discriminators between those competing in competitive sport and nonparticipants. Clearly, an understanding of adult recreational sport participation will depend in part on understanding how adults orient themselves to the competitive and non-competitive (ego vs. task) possibilities in the participatory opportunity.

Research investigating the goal orientations of adult athletes is virtually non-existent. One study, however, did examine the cognitive orientations of ultramarathoners (Acevedo, Dzewaltowski, Gill & Noble, 1992). The athletes in this study had a mean age of 40.2. These athletes scored high on competitiveness, lower on win orientation and high on goal orientation. From this it was suggested that the adult ultramarathoners were competitive yet they had little concern for win/loss outcomes. These adults focused on reaching personal goals. It cannot be concluded whether this is typical of athletes of this age or typical of athletes in this particular sport.

Another study of middle aged athletes was conducted by Dimanche, Havitz, and Howard (1991). The subjects were adult athletes competing in an international track and field competition. The athletes ranged in age from 35 to 81 years of age with the mean age being 53 years. The investigators were interested in measuring involvement in the sport and leisure domain. Involvement was defined as "an unobservable state of motivation, arousal or interest" (Dimanche et al. 1991, p.52). Involvement is thought to be a multidimensional construct. The authors in measuring involvement, used the Involvement Profile Scale, which measures involvement along four dimensions: interest or perceived importance of involvement, perceived pleasure value, perceived sign attributed to being involved, and the perceived risk associated with being involved. Involvement in six different recreational activities (downhill skiing, golf, competitive running, amusement parks, national parks, and dining out) was measured using the Involvement Profile Scale. The results showed that sign factor was the strongest indicator of involvement. The sign value refers, in this case, to the perceived ability of the recreational experience to express one's status, one's personality or identity. The authors

felt that this indicated the importance of self expression in leisure activities. The next significant factor to emerge was the combination of importance and pleasure. The authors felt that this underscores the feeling that pleasure and importance become synonymous in leisure settings. Extending these findings to adult recreational sport participation in general, one would expect opportunities perceived simply as fun to guide adults' participation choices. Recreation, then, serves to fulfill specific needs to express oneself, perhaps resulting in a more fulfilled mentally healthy individual.

Rosenberg (1986) has investigated the relationship between involvement in sport voluntary organizations and happiness in middle-aged and elderly adults. Results showed that the number of subjects rating themselves as very happy was significantly higher in the groups of subjects that were involved in voluntary associations. Participants who were members of one nonsport, one sport, two or more nonsport, and two or more associations including at least one sport voluntary association, were all more likely to report themselves as very happy than were members of no voluntary associations. When comparing the happiness attributed to being involved in sport voluntary associations versus nonsport voluntary associations, it was found that only men in one voluntary association tended to report themselves as being happier if they were in a sport voluntary association. This suggests that the men who were involved in only one voluntary association were happier if it had to do with sport. This was not found with the women in this sample. The authors then concluded that the number of voluntary association memberships is positively related to avowed happiness, and that in general, membership in a sport versus nonsport voluntary association does not result in higher levels of avowed happiness. Again, recreation activities appear to be related to mental health aspects of adults' lives.

A similar study was conducted by Smale and Dupius (1993). The authors investigated the relationship between participation in different leisure activities and psychological well-being across the lifespan. Three general leisure activities were examined: passive

activities which were solitary in nature (television watching and hobbies), social activities (visiting with friends and social club participation) , and physically active pursuits (walking for exercise and swimming). The following age categories were created to represent the lifespan: adolescence (11 to 19 years), young adults (20 to 34) years, mid-life (35 to 49 years), pre-retirement (50 to 64 years), and older adults (65 to 80 years). Psychological well-being was measured using the Bradburn Affect Balance Scale. Four activities were significantly related to psychological well-being. They were participation in hobbies and crafts, social clubs and organizations, and visiting friends. Participation in the physically active pursuits of swimming and walking did not contribute overall to psychological well-being, suggesting that physical and mental health concerns are separate factors in motivating recreational participation. Psychological well-being was found to be lowest among mid-life adults and the pre-retirement adults. The need to investigate the relationship between recreation and mental health among mid-life adults is highlighted by this finding.

Rogers and Brawley (1993) investigated which psychological variables could discriminate between adherers and drop outs in structured exercise and weight loss programs. They found that when looking at an exercise program, self-efficacy, outcome expectancies and perceived control were the variables that were able to predict exercise adherence during different phases of the program. Poag-DuCharme and Brawley (1993) found that scheduling efficacy could predict actual behaviour. In other words, if an exerciser felt confident that they could schedule time to exercise then in all likelihood they would actually exercise. Robinson and Carron (1982) found that enjoyment, a sense of belonging, and feelings of team closeness were some of the factors that could discriminate between sport adherers and dropouts. These findings, taken together suggest both a social (or affiliation) motive and a goal orientation as possible reasons for recreational participation.

Walter , Hart, Sutton, McIntosh & Gauld (1988), found that adults runners were motivated by "fitness" as their overall reason for participation. It was also interesting that in this sample 57.5% of the women over age 30 and 42.6% of the men over age 30 also participated in walking as physical activity; and 42.6% of the men over age 30 and 50% of the women over age 30 also participated in cycling as physical activity at least once a week. In this same article, the authors report that the most common reasons given by Canadians for running or jogging were health reasons, to lose weight, and to release tension. These reflect both physical and mental health reasons for participation.

In summary a broad scope of literature has been reviewed. Research has shown that there could exist five possible motives for adults to continue their participation in recreational sport. One such possible participation motive could be a social affiliation motive. Social affiliation refers to the motive that adults participate in sport in order to maintain and/or establish friendships. Smith (1978) found that same sex peers were responsible for initial sport involvement. Freysinger (1995) found that middle aged adults saw leisure as a time to be with friends or to make new friends. A social motive was also used by Heitman (1986), in order to determine reasons for involvement in physical activity among older adults. Sport participants have experienced greater feelings of belonging and team closeness than sport dropouts (Robinson and Carron, 1982). When constructing the questionnaire, statements such as "I participate in recreational sport to be with my friends" were designed to evaluate this motive.

Physical health is another possible motive for adult participation in recreational sport. The physical health motive refers to participation in sport and physical activity in order to become fit, lose weight, get stronger and live longer. McPherson (1986) states that physical activity and sport can maintain health and productivity through middle age into old age. Successfully aging people have been found to maintain their physical activity levels, contrary to the general trend of decreasing physical activity with age (Ostrow, 1982). Walter et al. (1988), reported that one of the most common motives for Canadian

adults to run or jog was for fitness reasons. This motive was evaluated by questions such as "I participate in recreational sport to improve or maintain my fitness level."

A third motive for continued participation in recreational sport for adults could be psychological well-being. Psychological well-being refers to the belief that being physically active makes people feel better mentally. Morgan (1986) found that when comparing athletes and non-athletes, athletes appeared happier and suffered less from depression than non-athletes. In the older adult years physical activity has been associated with psychological well-being (Smale and Dupuis, 1993). When designing the questionnaire statements such as "I participate in recreational sport to escape from the pressures of work and family" were introduced to investigate this motive

Two other participation motives that have evolved from the literature are the task and ego orientation motives. Task and ego oriented individuals are motivated to compete in sport for different reasons. Task oriented individuals compete for the sake of the sport itself. Skill improvement and achieving personal goals are the focus. Participating in sport for the purpose of self improvement and reaching personal goals has been investigated by Gill, Dzewaltowski & Deeter, (1988). Ego oriented individuals find satisfaction in comparing their own performance against the performance of others. Winning becomes the focus of sport participation. Gill et al. (1988), found that sport participants and non-participants differ on their achievement orientations. Ego orientation was investigated by the design of statements such as "I participate in recreational sport to see how good I am compared to other participants" while task orientation was represented by statements such as "I participate in recreational sport to improve my ability."

The above five motives (social affiliation, physical health, psychological well-being and task and ego orientation) were the focus of this investigation into the participation of adult recreational athletes. They served as the dependent variables in the study as originally proposed.

Chapter II

Statement of Problem

When children are young, they participate in sport because they report feelings of enjoyment, and, so long as they have significant others to encourage and support them, participation continues. As they age, participation becomes complicated. Time constraints, and our role expectations begin to affect our decisions regarding sport participation. Sport and physical activity participation comes about as a sort of internal bargaining process where pros and cons are weighed. The content of the bargaining procedure surrounding the recreation experience may be different for males and females, for those with personal responsibilities to other adults, or for those with childcare responsibilities. Recreation experiences may be different for females. It was the purpose of this study to provide a more comprehensive and interaction-based look at the motivations for adult recreational sport involvement, and for the personal considerations that interact with them.

Specifically, this study was designed to explore the influences of gender, relationship status, and child care responsibilities on variables that reflect the needs identified in the literature as being served by the adult participation in sport. These variables were thought to be:

1. Physical health motives
2. Psychological well-being
3. Task-oriented achievement motives
4. Ego-oriented achievement motives
5. Social affiliation motives

Based on the literature the following hypotheses were proposed:

1. The gender main effect will be significant, specifically that the males would be higher in ego orientation than the females.

2. The gender main effect will be significant for the task orientation motive, specifically that the females would be higher in task orientation than the males.
3. The child care responsibilities main effect will be significant, specifically that those with childcare responsibilities would have stronger psychological well-being motives.
4. The childcare responsibilities main effect will be significant for the social affiliation motive, specifically that those with childcare responsibilities would have stronger social affiliation motives than those with no childcare responsibilities.
5. The relationship status main effect will be significant, specifically that those involved in a relationship would have stronger psychological well-being motives than those not involved in a relationship.

Chapter III

Method

Participants

Participants were adult male and female players in the Windsor Adult Mixed Volleyball League. Players in this league must be 19 years of age or older. There are eight different tiers of skill levels. Teams self evaluate their skills and enter the league at a level they feel appropriate. At two points in the season, teams may be moved to a different tier to help assure equal skill levels. Players in this league commit to a season that runs from September through to April. Weekly games are played on either Tuesday or Wednesday at various schools in the city of Windsor. Each week three teams are assigned to play at a designated gym. Games are played in three small round robin arrangements so that each team plays the other two teams three times. The weekly time commitment is approximately three hours. Games are officiated by the players themselves. Results of the games are then taken to a central location where league results are tallied. Results are published in the Windsor Star weekly.

The focal points of the study was the 25-45 year old age group. Ninety-seven players who appeared to be in the 25 to 45 year old age group were randomly approached during regular season game play. Eighty-two players (37 men and 45 women) of those approached were of the appropriate age. The lower skill tiers and the masters division were targetted for recruiting volunteers.

Instrumentation

Based on the review of literature a questionnaire was designed to determine player motives for sport participation (Appendix A). Players were asked to react to statements regarding their sport participation in the following motivation areas: the social affiliation

motive, the physical health motive, the psychological well-being motive and task and ego orientation motives.

Questions 1,6,11,16 and 20 in Appendix A were designed to investigate the social affiliation motive. Questions 2,7,12,17 and 21 were intended to address the physical health motive. Questions 3,8,13,18 and 22, concerned the psychological well-being motive for sport participation. Questions 5,10,15,19 and 24, addressed ego orientation, while questions 4,9,14 and 23 addressed task orientation.

Demographic questions concerning age, sex, relationship status, and childcare responsibilities were included in the questionnaire. Relationship status was difficult to assess. The statement "In deciding to participate in this league I consulted someone else", was used to assess if the individuals were involved in a committed relationship. The rationale was that if someone was seriously involved in a relationship whether it be a married one or not, they would discuss participating in the league with someone else.

A pilot test of the questionnaire was conducted in two parts to determine the validity of the test. The first part included a wording assessment by a group of research experts to verify whether the questions fit into the appropriate categories. The second part of the pilot study involved administering the test to a group of adults runners at the Down River Treadmill Race in Trenton Michigan and at the Windsor Fireman's 10k Run. Adult runners (n=29) were approached prior to the start of the race and asked to complete the questionnaire. The questions were analyzed for internal reliability and consistency. Cronbach's alpha values exceeded 0.7 in all cases in the pilot study, indicating sufficient internal reliability. There was a difficulty in the wording of Part C and as a result participants did not understand how to complete the question. Editorial changes to the questionnaire were made and the questionnaire was administered to the study sample.

Procedures

Permission from one of the officers of WAMVL was obtained verbally in order to approach volleyball players to act as volunteers. Ethics approval of the instruments and procedures was obtained from the School of Human Kinetics.

During regular season play, at various Windsor elementary school gymnasiums, adults participating in the bottom two tiers of the Windsor Adult Mixed Volleyball League were approached by the experimenter during the warm-up period and asked to complete the questionnaire. The bottom two tiers were selected in order to achieve as homogeneous a sample as possible. The cover page explained the purpose of the study and provided all information required by the University of Windsor ethics policies (Appendix A).

Chapter IV

Results

Descriptive Statistics

A total number of 82 (37 male and 45 female) volleyball players participated in the study . Their mean age was 35. Twenty-two of the adults felt that childcare responsibilities constrained their choices in participating in recreational volleyball. Twenty-one participants were involved in a committed relationship.

Scale Reliability

The five motives embodied in the 24 questions were the social affiliation motive (questions 1, 6, 11, 16 and 20), the physical health motive (questions 2, 7, 12, 17 and 21) , the psychological well- being motive (questions 3, 7, 13, 18 and 22), the task orientation motive (questions 4, 9, 14 and 23), and the ego orientation motive (questions 5, 10, 15, 19 and 24). To determine for the study sample the internal validity of the five motives thought to be inherent in the structure of the questionnaire, scale reliability tests were performed on each scale. Descriptive statistics for each question are shown in Appendix B.. A correlation matrix was generated for each motive (Tables 1,2,3,4, and 5) and the overall reliability of each scale was assessed by the use of a single value known as Cronbach's alpha. A Cronbach's alpha measure of >0.7 is typically used to determine internal reliability. Scale values of less than 0.7 suggest that questions within the scale are not asking subjects about the same thing.

The Cronbach Alpha measures were .66 for the social affiliation motive, .78 for the physical health motive, .69 for the psychological well being motive , .77 for the task orientation motive and .85 for the ego orientation motive. It is important to note that removing the least highly correlated question from each of the five participation

motives did not increase the alpha values above the critical value 0.7 for those scales with low values. Since two of the five scales were characterized by unacceptably low internal reliability it was concluded that the original factor structure of the questionnaire was not statistically viable for the study sample. A factor analysis of the questionnaire was needed.

Table 1

Ego Orientation Motive Correlation Matrix

	Question 5	Question 10	Question 15	Question 19	Question 24
Question 5	1.00				
Question 10	0.38	1.00			
Question 15	0.50	0.57	1.00		
Question 19	0.41	0.50	0.61	1.00	
Question 24	0.55	0.54	0.65	0.67	1.00

N of Cases= 82

Reliability Coefficients 5 items

Alpha = .8533

Standardized item alpha = .8523

Table 2

Psychological Well Being Motive Correlation Matrix

	Question 3	Question 7	Question 13	Question 18	Question 22
Question 3	1.00				
Question 7	0.68	1.00			
Question 13	0.32	0.24	1.00		
Question 18	0.33	0.33	-0.01	1.00	
Question 22	0.31	0.44	0.23	0.24	1.00

N of Cases= 82

Reliability Coefficients 5 items

Alpha= .7009

Standardized item alpha= .6941

Table 3

Physical Health Motive Correlation Matrix

	Question 2	Question 7	Question 12	Question 17	Question 21
Question 2	1.00				
Question 7	0.32	1.00			
Question 12	0.23	0.57	1.00		
Question 17	0.37	0.55	0.71	1.00	
Question 21	0.28	0.31	0.31	0.53	1.00

N of Cases= 82

Reliability Coefficients 5 items

Alpha= .7492

Standardized item alpha= .7828

Table 4

Social Affiliation Motive Correlation Matrix

	Question 1	Question 6	Question 11	Question 16	Question 20
Question 1	1.00				
Question 6	0.39	1.00			
Question 11	0.25	0.44	1.00		
Question 16	0.51	0.26	0.22	1.00	
Question 20	0.23	0.24	0.24	0.20	1.00

N of Cases= 82

Reliability Coefficients 5 items

Alpha= .6486

Standardized item alpha= .6553

Table 5

Task Orientation Motive Correlation Matrix

	Question 4	Question 9	Question 14	Question 23
Question 4	1.00			
Question 9	0.51	1.00		
Question 14	0.33	0.44	1.00	
Question 23	0.34	0.46	0.66	1.00

N of Cases= 82

Reliability Coefficients 4 items

Alpha= .7668

Standardized item alpha= .7710

Factor Analysis

The 24 items in the questionnaire were separated from their attachments to the original factors and a correlation matrix was constructed. In order to achieve a coherent factor structure in the factor analysis, only those questions that were correlated to at least two other questions with a minimum Pearson correlation coefficient value of $r=0.4$ were selected for further inclusion in the analysis. Questions 4, 16, 18, 20 and 21 did not meet this requirement and were eliminated from further statistical treatment. Questions 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 19, 22, 23, and 24 did meet the criterion and were selected to undergo a factor analysis.

In a factor analysis the goal is to reduce the complexity in a set of variables. In this study a principal component analysis was the factor extraction method used. Using this technique, highly inter-correlated variables are identified and grouped into factors fostering a simpler explanation of the data. The principal component analysis identified 5 factors using the standard criterion of choosing only those factors whose eigenvalues were greater than or equal to 1.0 (Diekhoff, 1992). The primary factor alone explained 29.9% of the total variance while the combined five factors explained 67.4% of the total variance (Table 6). A factor analysis that explains more than 60% of the variance while reducing the number of variables to about 1/4 of the original number may be considered successful (Diekhoff, 1992).

Questions 9, 11, 14, 22 and 23 loaded on to the first factor, questions 5, 10, 15, 19 and 24 loaded on to the second factor, questions 7, 12, 13, and 17 loaded on to the third factor and questions 3 and 8 loaded on to the fourth factor. The final factor loading included questions 1, 2 and 6 (Table 6).

Table 6

Total Variance Explained

Factor	Eigenvalues	% Total Variance	Cumulative %
1	5.69	29.93	29.93
2	3.33	17.52	47.44
3	1.94	7.86	55.31
4	1.27	6.70	62.01
5	1.034	5.44	67.45

The communality of the variables (Table 7) was acceptably high with values ranging from .52 to .84 (maximum value 1.0). Communality is a measure of the degree to which each variable is explained by knowledge of all of the other variables. High communality indicates a high degree of coherence in the factor structure (Diekhoff, 1992).

The labeling of the factors was done by identifying subjectively the conceptual links among the questions associated with each factor. Given that the questions statistically grouped themselves together, what did they have in common and what story did they tell?

For factor 1, labeled Sport Improvement, the statistically correlated questions were:

- 9) I participate in recreational sport to give myself a chance to set and achieve goals.
- 11) I participate in recreational sport to meet new people.
- 14) I participate in recreational sport to improve my ability.
- 22) I participate in recreational sport because it boosts my self-confidence.
- 23) I participate in recreational sport because as I get older I want to maintain my skill level.

These questions suggested a self-monitoring vein, where participants engaged in a process of keeping track of themselves, both in terms of ego and task orientations.

The second factor, labeled Competition, included these questions:

- 5) I participate in recreational sport because I like to compete.
- 10) I participate in recreational sport to see how my team compares with other teams.
- 15) I participate in recreational sport to see how good I am compared to other participants.
- 19) I participate in recreational sport to be the best player on my team or in my league.
- 24) I participate in recreational sport to win.

Table 7

Communalities

	Extraction
Variable 1	.74
Variable 2	.70
Variable 3	.81
Variable 5	.57
Variable 6	.54
Variable 7	.65
Variable 8	.84
Variable 9	.52
Variable 10	.56
Variable 11	.52
Variable 12	.84
Variable 13	.56
Variable 14	.70
Variable 15	.73
Variable 17	.73
Variable 19	.69
Variable 22	.63
Variable 23	.72
Variable 24	.77

These questions all clearly dealt with being the best and winning.

The third factor, labeled Fitness, included these questions:

- 7) I participate in recreational sport to improve or maintain my strength and/or flexibility.
- 12) I participate in recreational sport to get some exercise.
- 13) I participate in recreational sport for the enjoyment it gives me.
- 17) I participate in recreational sport to improve or maintain my fitness level.

These questions spoke of the good feelings that participants got from exercising and being concerned with their fitness.

The fourth factor, labeled Stress Reduction, included these questions:

- 3) I participate in recreational sport to relieve stress.
- 8) I participate in recreational sport to escape from the pressures of work and family.

Three questions loaded on the final factor. They were:

- 1) I participate in recreational sport to be with my friends.
- 2) I participate in recreational sport to keep myself looking and feeling younger.
- 6) I participate in recreational sport to be part of a team.

These questions together seem to suggest that the participants are looking to recreate a time in the past when the players played sports with their friends for fun. This factor was called the Affiliation factor.

Analysis of Variance

For each factor a three way analysis of variance (ANOVA) of the form sex x childcare responsibilities x permission to participate was performed. For Factor 1, the Sport improvement factor, none of the main or interaction effects reached statistical significance at the $\alpha = .05$ level.

No significant main or interactions effects were found for the Competition factor (Factor 2).

No main effects or interactions were found to be significant for the Fitness factor (Factor 3) or the Affiliation factor (Factor 5).

There was a significant main effect found for the Stress Reduction factor (Factor 4). The sex variable showed a difference between the two groups significant at the .027 level. Specifically women felt more strongly (mean score 5.51) about this as a motive for participation than men did (mean score 4.59). No other main effects or interactions were found.

Analysis of variance results are summarized in Tables 8 (Factor 1), 9 (Factor 2), 10 (Factor 3), 11 (Factor 4), and Table 12 (Factor 5).

Subject numbers were not uniformly distributed. Some cell sizes in the analysis of variance are smaller than others (Tables 13, 14, 15, 16, and 17). In general, sample sizes are skewed towards those males and females who reported both no need to check with another person in order to play and also no childcare responsibilities. The smallest cells were the males without child care responsibilities who reported checking with someone else about playing. Overall, the statistical main effects were not influenced by small sample size. However, statistical tests of interaction effects were less powerful than those of main effects because of small cell sizes in these cases. Therefore, the absence of statistical significance for interaction effects could be the result of low statistical power rather than the actual absence of differences.

Table 8
Analysis of Variance For Factor I, Sport Improvement

Source	df	F
Sex (s)	1	0.27
Consult Other (CO)	1	0.07
Childcare Responsibilities	1	0.01
S x CO	1	1.16
S x CR	1	0.54
CO x CR	1	0.02
S x CO x CR	1	0.07
Error	74	(20.78)

Note. Values enclosed in parenthesis represent mean square errors.

* $p < .05$

Table 9

Analysis of Variance for Factor 2. Competition

Source	df	F
Sex (S)	1	2.00
Consult other (CO)	1	0.01
Childcare Responsibilities (CR)	1	1.25
S x CO	1	0.21
S x CR	1	0.00
CO x CR	1	0.09
S x CO x CR	74	(45.84)

Note. Values enclosed in parenthesis represent mean square errors.

* $p < .05$

Table 10
Analysis of Variance for Factor 3, Fitness

Source	df	F
Sex (S)	1	0.18
Consult Other (CO)	1	2.66
Childcare Responsibilities (CR)	1	0.14
S x CO	1	0.00
S x CR	1	0.33
CO x CR	1	2.60
S x CO x CR	1	0.45
Error	74	(13.35)

Note. Values enclosed in parenthesis represent mean square errors.

* $p < .05$

Table 11

Analysis of Variance for Factor 4. Stress Reduction

Source	df	F
Sex (S)	1	5.11*
Consult Other (CO)	1	0.03
Childcare Responsibilities (CR)	1	3.58
S x CO	1	0.98
S x CR	1	0.18
CO x CR	1	0.00
S x CO x CR	1	0.02
Error	74	(9.82)

Note. Values enclosed in parenthesis represent mean square errors.

*p < .05

Table 12

Analysis of Variance for Factor 5. Affiliation

Source	df	F
Sex	1	0.02
Consult Other (CO)	1	1.47
Childcare Responsibilities (CR)	1	0.11
S x CO	1	0.16
S x CR	1	0.04
CO x CR	1	0.40
S x CO CR	1	0.02
Error	74	(13.50)

Note. Values enclosed in parenthesis represent mean square errors.

*p < .05

Table 13
Descriptive Statistics for Sport Improvement Motivation

Sex Relation Children		Male			
		Yes		No	
		Yes (n=7)	No(n=4)	Yes (n=5)	No (n=21)
	Mean	4.07	3.40	3.68	3.80
	SD	1.41	1.31	0.52	0.87

Sex Relation Children		Female			
		Yes		No	
		Yes (n=3)	No (n=7)	Yes (n=7)	No (n=28)
	Mean	3.47	4.17	3.46	3.22
	SD	0.46	0.92	1.46	1.12

Table 14
Descriptive Statistics for Competition Motivation

Sex Relation Children	Male			
	Yes		No	
	Yes (n=7)	No(n=4)	Yes (n=5)	No (n=21)
Mean	3.86	3.67	3.60	3.59
SD	1.29	1.94	1.59	1.37

Sex Relation Children	Female			
	Yes		No	
	Yes (n=3)	No (n=7)	Yes (n=7)	No (n=28)
Mean	3.60	3.18	3.37	2.91
SD	1.40	0.90	1.27	1.37

Table 15
Descriptive Statistics for Fitness Motivation

Sex Relation Children	Male			
	Yes		No	
	Yes (n=7)	No(n=4)	Yes (n=5)	No (n=21)
Mean	5.50	5.50	6.35	5.89
SD	1.40	1.11	0.45	0.87

Sex Relation Children	Female			
	Yes		No	
	Yes (n=3)	No (n=7)	Yes (n=7)	No (n=28)
Mean	5.97	6.04	6.50	5.83
SD	0.85	0.60	0.60	0.56

Table 16
Descriptive Statistics for Affiliation Motivation

Sex Relation Children	Male			
	Yes		No	
	Yes (n=7)	No(n=4)	Yes (n=5)	No (n=21)
Mean	5.18	5.27	5.20	4.55
SD	0.88	0.67	1.52	1.40

Sex Relation Children	Female			
	Yes		No	
	Yes (n=3)	No (n=7)	Yes (n=7)	No (n=28)
Mean	5.20	5.13	5.06	4.93
SD	0.51	0.91	0.85	1.29

Table 17
Descriptive Statistics for Stress Reduction Motivation

Sex Relation Children	Male			
	Yes		No	
	Yes (n=7)	No(n=4)	Yes (n=5)	No (n=21)
Mean	4.80	3.66	5.32	4.58
SD	1.20	0.28	0.96	1.52

Sex Relation Children	Female			
	Yes		No	
	Yes (n=3)	No (n=7)	Yes (n=7)	No (n=28)
Mean	6.01	5.36	5.88	5.14
SD	0.28	0.76	0.48	1.70

Chapter V

Discussion

Henderson, Bialeschki, Freysinger & Shaw (1989) state that the leisure experience has a primary importance in the quality of people's everyday lives. The need for freedom of self-expression, a sense of involvement and a desire to escape from everyday routines are factors that affect people's choice of leisure activities. When deciding how to occupy their leisure time, some adults choose physical activity over all other possibilities. What motives lead to this choice?

Continued participation in physical activity and recreational sport throughout the lifespan has been the focus of such groups as Participaction. A longer, healthier and better quality of life are the results of an active lifestyle. A more health conscious population can result in lower health care costs for our overburdened health care system. Keeping people active benefits not only the individuals involved but the Canadian health care system.

McAuley (1992), however, reports that regardless of well documented health benefits, less than 20% of the North American population of adults between the ages of 18 and 65 exercise at levels that can contribute to positive health changes. Another 40 % participate in some physical activity but not at sufficient levels to improve physical fitness. The remaining 40% of the population is inactive.

Weinberg (1992) states that although interest in health and fitness issues is increasing the rate of participation is decreasing. Weinberg maintains that we need to develop fitness and exercise programs to meet the needs of older adults. What are the needs of the adult population in regard to fitness and exercise? How could we encourage individuals to participate in physical activity during their leisure time? What draws us to participate

in physical activity? Why is organized sport a physically active leisure choice for some adults but not others?

This study was an attempt to discover the adult needs and motives for sport participation and to examine how these interact with gender and adult responsibilities. The literature has shown some possible reasons for adults to continue their participation in recreational sport. An attempt was made to synthesize the information found in the literature and to develop a questionnaire that would help to investigate the motives of adults between the ages of 25 and 45 in their sport participation. Specifically the motives were thought to be social affiliation, physical health, psychological well being, task and ego orientation.

Statistical analyses based on the assumptions that these motives existed as structured in the questionnaire revealed that although the literature supported the possible motives mentioned above, the data from this group of subjects did not support this premise. When the questions were correlated with each other, they did not group together as expected into the five motives of physical health, psychological well-being, social affiliation, task and ego orientation. A possible explanation could lie in the fact that much of the research to date regarding motives for sport participation has centered around children and college age students. Perhaps middle-aged adults have other motives for sport participation. Also questionnaire validity and reliability are usually built upon long-term development with many groups. While the five motives made theoretical sense, they did not make sense in the same way to the respondents in this sample. This initial finding that theoretical motivation constructs taken from the sport psychology literature did not materialize should serve to caution other investigations of adults in sport and recreation.

Given that the data collection had been completed, another method of trying to solve the motivational puzzle was needed. A factor analysis showed that five statistically significant factors or participation motives emerged. The first factor, based upon responses to five statements, was named the sport improvement motive. The statements

included ideas about participating in recreational sport for such reasons as setting and achieving goals, meeting new people, improving one's ability, increased self-confidence, and maintaining one's skill level. This factor or motive included statements about task orientation and concerned itself with a means of monitoring an individual's progress with respect to reaching self imposed goals. Task and social based comparison goals have been preferred equally by athletes who participated in recreational sport (Duda, 1989). Meeting new people allowed the athletes in this study to compare their own performance against that of others, while they were able to personally monitor their own skill improvement over the course of the season. The results showed that this was not strong motive for participation in recreational volleyball among the adults in this group.

The second factor included statements that encompassed the participants' feelings about competition. Ideas about enjoying competition, comparing the performance of one's own team with that of other teams, being the best, and liking to win were included in the statements in this factor. Gill (1988) found this to be a stronger motive for males than females when examining gender differences in competitive orientation. This motive for participation in sport was not a strong one for the adults in this sample.

The third factor, called the fitness motive, included statements such as participating in recreational sport to get exercise, enjoyment, improving or maintaining fitness levels and improving strength and flexibility. Walter, Hart, Sutton, McIntosh & Gauld (1988) cited fitness as the most important motive for participation in their study of adult runners. In agreement with the study above, the results of this study showed that this was a stronger motive for adults to continue participating in sport on into their adult years.

The fourth factor included statements about participating in recreational sport for the relief of stress and to escape the pressures of work and family. "Coping" was cited as one of the top three motives of older adults for participating in physical activity (Heitmann, 1986). Relieving stress through participation in physical activity can help people cope

with the stresses of everyday life. This also was a stronger motive for participation than the self-monitoring and competition motives.

The final factor named the affiliation factor included statements about participating in sport to be with friends, keeping oneself feeling younger, and being part of a team. Again this was a strong participation motive. Robinson & Carron (1982) found that a sense of belonging, feelings of team closeness and the enjoyment derived from being part of a team were able to discriminate between sport participants and dropouts.

In general the adults who participated in this study seemed to be mostly motivated by fitness when deciding to play recreational volleyball. Lowering stress and being with friends were the next strongest motives for participating in recreational sport. Competition and comparison with others were only minor influences.

Since it was known how the group as a whole rated the statements dealing with the five motives, the next step was to determine whether males, and females answered differently on each of the five participation motives. The literature has suggested that males and females experience sport differently. Henderson and Bialeschki (1993) found that women mentioned age and stage of life as barriers or constraints to participation in sport. Freysinger (1995) suggested that women stressed the need to get away from the requirements of life when making their leisure choices. Although males and females answered similarly on the self-monitoring, peer affiliation, competition and fitness motives, there was a statistically significant difference in the way that males and females rated the statements pertaining to stress reduction. Specifically, it was more important for females to participate in sport to relieve stress. This supports Freysinger's finding that "getting away from it all" is an important motive for women in choosing their particular recreation activities. This also upholds Freysinger's statement that "women and men enter adulthood from different stances and confronting different psychological issues".

The finding that there were no significant differences between males and females on the competition scale is contrary to the findings of Gill & Deeter (1989). Both males

and females rated the competition motive as the least important reason for participating in recreational sport. Perhaps the reason for this was the fact the athletes played in the lowest two tiers of the nine tier league. It would be interesting to see if those adults playing in the upper tiers of the league rated the competition motive as more important to their involvement in sport. The level of play in the upper tiers is of a higher caliber and the players are younger and more serious about the game. It would seem to follow that competition would be a stronger motive for the adults participating at that level.

Another important finding was that those who needed to consult with another when deciding whether or not to participate in recreational sport rated the statements in the questionnaire in the same way as those who did not need to consult any other person. This suggests that individuals who are involved in relationships have the same motives for participating in recreational sport as those who are not involved in a relationship. Rudman (1986) suggested that participation in sport may serve as a way of initiating prospective dating relationships. From this one would assume that those who were not involved in a relationship would have stronger social motives for participating in sport. However, social affiliation is also important to those who are in meaningful relationships. Rather than wanting to be with others to find a prospective date, those who are already involved gain enjoyment from wanting to make and be with their friends.

Leisure opportunities are affected not only by gender but also by marital status (Henderson et al., 1989). The type, quality and amount of leisure time and how it is distributed is affected by marital status. It is somewhat surprising that in this study adults motives to participate in recreational sport were not affected by their relationship status. A problem with the questionnaire was that relationship status was difficult to assess. The statement "In deciding to participate in this league I consulted someone else", was vague. Some participants answered that they had consulted their coach when deciding to play volleyball. This question was intended to help determine if individuals were involved in committed relationships. It was felt that asking if individuals were

married or not did not include all individuals who were in a committed relationship. For example, those who were involved in common-law relationships and those who were engaged would have been missed. A qualitative statement such as "Are you involved in a committed relationship?" and then "explain briefly" perhaps would have solved this problem. In addition to wording difficulties as an explanation, another reason for the above finding could be that many of the adults participating in the bottom two tiers of the volleyball league were coming to play as couples. Henderson et al. (1989) suggest that leisure companionship is a major element in family life and marriage. Therefore consulting a "significant other" prior to registering to play in the league became a non-issue for these adults. They didn't need anyone's permission or consent because the decision was made as a couple and their motives mirrored this decision.

As with relationship status childcare responsibilities were difficult to assess. The question, "Do childcare responsibilities constrain your leisure choices to participate?" was used to determine whether the adult participants had children. Difficulties arose because some adults answered no to the question, yet later reported that they had two young children at home. After recognizing that there were wording difficulties in the questionnaire, it was determined that there were no significant differences in the way that those with childcare responsibilities and those without childcare responsibilities rated the statements concerning their motives for participation in recreational sport. Having the responsibility of caring for children did not appear to change individuals motives for sport participation. This is an interesting finding and contrary to the other research. Women have been found to rate childcare responsibilities as more constraining than men (Henderson et al., 1989). Children have been found to affect the availability of leisure time for both parents often impeding the women's activities more (Henderson et al., 1989). The authors suggest that young children constrain leisure not only due to the physical care that parents give their children, but also because of the emotional and physical demands that children place on parents. Adults with children typically tend to

their children's needs prior to spending time in leisure pursuits. If an activity (such as playing volleyball) is occurring in the evening, the children must be given their dinner, homework must be checked and baby-sitting problems must be taken care of.

Sometimes the children's own activities such as piano lessons, or basketball games take precedence over the adult's pursuits. If a child is ill or if a baby-sitter cancels then alternative arrangements must be made. Perhaps the adults participating in this study had previously successfully resolved their childcare issues and therefore their motives for participating in recreational sport were not affected.

Koukouris (1994) found that competitive athletes left their sport because of such factors as time demands, and the negative effects of participating in sport on their social lives. For the athletes in the study the pressures of participating in sport had become too great to continue. The adult volleyball players experience different daily pressures. The demands of work and family life can be very consuming. The adults participating in this study have overcome time demands and arranged their schedules in order to continue participating in recreational sport. Rather than sport having a negative effect on their social lives, a night of recreational volleyball has become part of their social life. Participation in recreational sport has become a way to escape the daily pressures of life. Although it may not be fair to compare competitive athletes with recreational athletes it is interesting to note that the same reasons that had caused one group of athletes to end their sporting careers became non-issues and positive reasons for participating in sport for another group. The time set aside for sport participation is looked forward to with relish rather than contempt.

The results from this study suggest that the adult recreational volleyball players who participated in this study were a fairly homogeneous group. It didn't matter whether they were involved in a relationship, had children or for the most part whether they were male or female. Everyone reported being there for the same reasons. Fitness, stress reduction and social affiliation factors were the most important for recreational sport participation.

In order to encourage adult participation in recreational sport and physical activity, it would be beneficial to concentrate on positive physical and mental fitness and social outcomes.

Possible Areas For Future Study

When considering this project, a choice had to be made. It had to be decided whether to use an existing questionnaire or to develop a new one. Although there were several motivational questionnaires that had already been developed and tested by others, none of them were appropriate. Consequently the decision to develop a questionnaire was made.

The use of more qualitative research to study the area of motivation in sport and exercise can give a more complete look at individual's motivations for participation. While the use of questionnaire such as the SOQ (Duda, 1989), and the WOFO (Gill, 1988) are useful tools in the gathering of information, they are also limited in the amount and type of information they yield. When structuring this questionnaire, it was originally felt that individuals participated in sport possibly for five reasons, physical health benefits, psychological well-being, social affiliation reasons, task and ego orientation reasons. The statistical analysis showed that this was not so. It would have been beneficial to have been able to ask the participants to tell in their own words why they participated recreational volleyball rather than statistically trying to reorganize the data to tell their story. A combination of the use of both methods gives researchers the flexibility they need to investigate motivational behaviour.

Although the original questionnaire was not successful in its original form, in many ways, the new factors or motives made sense. Some were highly related to the original motives which were found in the literature. For example the fitness motive related strongly to the original physical health motive, the stress reduction motive related to the psychological well-being motive, the sport improvement motive related to the task orientation motive and the competition motive related to the ego orientation motive. The affiliation motive appeared to be related to the original social affiliation motive. Why the original motives did not exhibit a higher internal reliability after the reliabilities in the

pilot study were adequate is an enigma. Possibly the participants in the study had less time to complete the questionnaire and weren't able to concentrate because they were concerned with not having enough time to warm up. Another possibility is that the two groups of participants were very different from each other. For example, the two road races at which data for the pilot study were collected were 10 and 8 kilometer distances. In order to run these distances a runner must train. These athletes were perhaps more committed to their sport than the volleyball players because of the amount of time given to training versus playing only one game a week. This commitment made the runners more clear on their participation motives and when answering the questions they perhaps didn't hesitate and weren't searching their conscience in order to discover their motives.

This study was limited in that it only focused on recreational athletes involved in the sport of volleyball. Would the findings have been different if other sport groups had been included? Would the results have been different if same sex sports rather than a mixed league were used? Competitive athletes may also have different motives for participating in sport. How would the results have differed if the top two tiers of the WAMVL athletes had been sampled? As such sporting events as the Senior Olympics are becoming more popular, it suggests that individuals are extending or reestablishing their competitive careers. It would be of interest to know what motivates these groups of individuals.

Scanlan and Simons (1992) have constructed a sport commitment model which attempts to explain why individuals continue their involvement in an activity. The authors see sport enjoyment as a key component of an individual's adherence to physical activity. Included also in their psychological construct of sport commitment are such components as involvement alternatives, personal investments, involvement opportunities and social constraints. In combining the study of sport commitment with the study of motivation to participate in sport a more complete picture of the adult athlete and their participation and adherence to sport would result.

Further research into the study of adults and their participation in physical activity and sport is needed. We need to know more about what motivates adults to participate in sport and physical activity, and what keeps them from dropping out. The more researchers can discover, the greater the pool of knowledge that educators and health care professionals can access when working with the ever growing, aging adult population.

A Personal Note

As a married, mother of two who plays recreational volleyball in this league with my husband and friends, I was surprised by what I had discovered upon the completion of this research project. Essentially this study was about me and my peer group. The focus of our participation is the affiliation factor. We come to be with friends and to “touch base” once a week. In between games we discuss the events of the past week, our children and we make plans for future gatherings. The fitness motive is not our prime reason for participation. Most of the members of my group are involved in other activities to improve fitness.

Once in a while we complain about things that frustrate us or that are not going our way, in that way I suppose that the stress reduction factor does apply to my group.

Although we do rent a gym and practice our game once in a while, skill improvement and competition motives are not of prime importance to us. In this way we are similar to the rest of the players in this sample.

The original idea behind this study was to discover something about the adults in my age group and their sport participation motives. In thinking about developing the questionnaire I had to think about my participation motives and those of my peers.

Although this study had many limitations I think it accomplished what it was meant to do in adding a little bit to the available literature on adult participation in sport.

Appendix A

The Questionnaire

The following questionnaire is designed to assess your reasons for recreational sport participation. It is part of study done in partial fulfillment of the requirements of my master's degree in Human Kinetics at the University of Windsor. The results will add to our understanding of why adults between the ages of 30 and 50 participate in sport. It is very important that you complete the questionnaire by responding with your immediate and honest reaction to each question.

The questionnaire should take five minutes to complete. Participation is voluntary and you may withdraw from the study at any time. Your answers will be pooled and analyzed with those of other participants and discussion of the results will only be of the group as a whole. You may be assured that your responses will be kept confidential.

A final copy of the study can be made available to you by contacting me at the University of Windsor. Any other concerns can be brought to the attention of Dr. J. Corlett at the University of Windsor at 253-4232 ext. 2453, or to the Office of Research Services at ext. 3916.

Thank-you in advance,

Ursula Miletic

I have read and understood the above information and agree to participate in the study.

Signature

Date

Questionnaire

Part A

Respond to the following statements as they apply to your participation in recreational sport. Use the 7 point scale as shown:

1	2	3	4	5	6	7
Strongly						Strongly
Disagree						Agree

1. I participate in recreational sport 1 2 3 4 5 6 7
to be with my friends.
2. I participate in recreational sport 1 2 3 4 5 6 7
to keep myself feeling and
looking younger.
3. I participate in recreational sport 1 2 3 4 5 6 7
to relieve stress.
4. I participate in recreational sport 1 2 3 4 5 6 7
to learn new skills.
5. I participate in recreational sport 1 2 3 4 5 6 7
because I like to compete.
6. I participate in recreational sport 1 2 3 4 5 6 7
to be part of a team.
7. I participate in recreational sport 1 2 3 4 5 6 7
to improve or maintain my strength
and/or flexibility.

8. I participate in recreational sport 1 2 3 4 5 6 7
to escape from the pressures of work
or family.
9. I participate in recreational sport 1 2 3 4 5 6 7
to give myself a chance to set and
achieve goals.
10. I participate in recreational sport 1 2 3 4 5 6 7
to see how my team compares with
other teams.
11. I participate in recreational sport 1 2 3 4 5 6 7
to meet new people.
12. I participate in recreational sport 1 2 3 4 5 6 7
to get some exercise.
13. I participate in recreational sport 1 2 3 4 5 6 7
for the enjoyment it gives me.
14. I participate in recreational sport 1 2 3 4 5 6 7
to improve my ability.
15. I participate in recreational sport 1 2 3 4 5 6 7
to see how good I am compared to
other participants.
16. I participate in recreational sport 1 2 3 4 5 6 7
because we all get together after.
17. I participate in recreational sport 1 2 3 4 5 6 7
to improve or maintain my fitness
level.
18. I participate in recreational sport 1 2 3 4 5 6 7
to get aggression out in a safe way.

19. I participate in recreational sport 1 2 3 4 5 6 7
to be the best player on my team
or in my league.
20. I participate in recreational sport 1 2 3 4 5 6 7
for the camaraderie.
21. I participate in recreational sport 1 2 3 4 5 6 7
to lose or maintain weight.
22. I participate in recreational sport 1 2 3 4 5 6 7
because it boosts my self-confidence.
23. I participate in recreational sport 1 2 3 4 5 6 7
because as I get older I want to
maintain my skill level.
24. I participate in recreational sport 1 2 3 4 5 6 7
to win.

Part B

Answer briefly the following questions.

Do childcare responsibilities constrain your leisure choices to participate in this sport?

Circle one- Yes No

In deciding to participate in this league I consulted someone else.

Circle one- Yes No

Who? _____

I am ...

Circle - Male Female

I am _____ years old.

Briefly describe your relationship, family, and or childcare circumstances that influence your decision to participate in recreational sport.

e.g., I am married, living with my spouse. We have two children ages 2 and 6 that live with us.

e.g., I am divorced and live with my daughter who is seventeen.

Part C

Rank order the following motives for your participation in recreational sport using the numbers 1,2,3,4,and 5 with (1) being the most important and (5) being the least important.

- () I participate to see how well I can play.
- () I participate to compete against others.
- () I participate for physical health reasons.
- () I participate to maintain psychological well-being.
- () I participate to socialize with others.

Appendix B

Table 18

Means and Standard Deviations for Original Adult Participation Motives

	Question	Mean	Std. Deviation
Social Affiliation Motive	1	5.34	1.38
	6	4.88	1.53
	11	4.87	1.48
	16	4.48	1.98
	20	4.77	1.53
Physical Health Motive	2	4.85	1.74
	7	5.33	1.39
	12	6.18	1.01
	17	5.72	1.19
	21	4.50	1.66

Table continues

	Question	Mean	Std. Deviation
Psychological Well-being Motive	3	5.27	1.76
	7	5.33	1.39
	13	6.26	0.93
	18	3.62	1.86
	22	4.04	1.40
Task Orientation Motive	4	4.34	1.63
	9	3.89	1.43
	14	4.91	1.54
	23	4.17	1.40
Ego Orientation Motive	5	4.85	1.62
	10	2.89	1.56
	15	3.39	1.84
	19	2.38	1.60
	24	3.26	1.98

References

- Adrian, M., Hulac, G., Klinger, K., & Epperson, S., Biomechanical and sociological parameters of female athletes. In F. Landry, and W. Orban (Eds.) Sociology of Sport (pp. 121-130) Miami, Fla: Symposia Specialists.
- Acevedo, E. O., Dzewaltowski, D. A., Gill, D. L., & Noble, J. M. (1992). Cognitive orientations of ultramarathoners. The Sport Psychologist, 6, 242-252.
- Corbin, C. B., Landers, D. M., Feltz, D. L. & Senior, K. (1983). Sex differences in performance estimates: Female lack of confidence vs. male boastfulness. Research Quarterly for Exercise and Sport, 54, 407-410.
- Diekhoff, G. (1992). Statistics for the social and behavioural sciences. Dubuque, IA: Wm.C. Brown.
- Dimanche, F., Havitz, M., & Howard, D. (1991). Testing the involvement profile (IP) scale in the context of selected recreational and touristic activities. Journal of Leisure Research, 23(1), 51-66.
- Duda, J.L. (1989) Goal perspectives, participation and persistence in sport. International Journal of Sport Psychology, 20, 42 - 56.
- Dzewaltowski, D. A. (1989). Toward a model of exercise motivation. Journal of Sport and Exercise Psychology, 11, 251-269.
- Freysinger, V. J. (1995). The dialectics of leisure and development for women and men in mid-life: An interpretive study. Journal of Leisure Research, 27(1), 61-84.
- Gill, D. L. (1988). Gender differences in competitive orientation and sport participation. International Journal of Sport Psychology, 19, 145-159.
- Gill, D. L., Dzewaltowski, D. , & Deeter, T. E. (1988). The relationship of competitiveness and achievement orientation to participation in sport and nonsport activities. Journal of Sport and Exercise Psychology, 10, 139-150.
- Gill, D. L., Gross, J. B., Huddleston, S., & Shifflett, B. (1984). Sex differences in achievement cognitions and performance in competition. Research Quarterly for Exercise and Sport, 55(4), 340-346.
- Gould, D., & Horn, T. (1984). Participation motivation in young athletes. In J. M. Silva & Weinberg (Eds.), Psychological Foundations of Sport (pp.359-370). Champaign, IL: Human Kinetics.

Hall, A., Slack, T., Smith, G., & Whitson, D. (1991). Sport in Canadian society. Toronto, Ontario: McClelland and Stewart.

Heitmann, H. M. (1986). Motives of older adults for participating in physical activity programs. In B. D. McPherson (Ed.), Sport And Aging (pp.199-203). Champaign, IL: Human Kinetics.

Henderson, K. A., & Bialeschki, M. D. (1993) Exploring an expanded model of women's leisure constraints. Journal of Applied Leisure Research, 18 (4), 229-252.

Henderson, K.A., Bialeschki, M.D., Freysinger, V.J. & Shaw, S.M. (1989). A leisure of one's own. A feminist perspective on women's leisure. State College, PA.: Venture Inc.

Henderson, K. A., Stalnaker, D., & Taylor, G. (1988). The relationship between barriers to recreation and gender-role personality traits for women. Journal of Leisure Research, 20 (1), 69-80.

Hirshberg, C (1996, August). Life goes to.....The Senior Olympics. Life, pp. 26, 28, 39.

Koukouris, K. (1994). Constructed case studies: athletes' perspectives of disengaging from organized competitive sport. Sociology of Sport Journal, 11, 114-139.

McAuley, E. (1992). Understanding exercise behaviour: A self-efficacy perspective. In G.C. Roberts (Ed.), Motivation in Sport and Exercise (pp. 107-127). Champaign, IL: Human Kinetics.

McPherson, B. D. (1986) Sport, health, well-being, and aging: Some conceptual and methodological issues and questions from sport scientists. In B. D. McPherson (Ed.), Sport And Aging (pp1-23). Champaign, IL: Human Kinetics.

McPherson, B.D. (1978) The sport role socialization process for Anglophone and Francophone adults in Canada: Accounting for present patterns of involvement. In F. Landry, and W. Orban (Eds.) Sociology of Sport (pp. 41-52) Miami, Fla: Symposia Specialists.

Morgan, W. P. (1986). Athletes and nonathletes in the middle years of life. In B. D. McPherson (Ed.), Sport And Aging (pp167-183). Champaign, IL: Human Kinetics.

Ostrow, A. D., Jones, D. C. and Spiker, D. D. (1981). Age role expectations and sex role expectations for selected sport activities. Research Quarterly For Exercise and Sport, 52(2), 216-227.

Ostrow, A. D. (1982). Age Grading: Implications for Physical Activity Participation Among Older Adults. Quest, 33(2), 112-123.

- Poag-DuCharme, K. A., & Brawley, L. (1993). Self-efficacy theory: Use in the prediction of exercise behaviour in the community setting. Journal of Applied Sport Psychology, 5, 178-194.
- Rogers, W. M. & Brawley, L. R. (1993). Using both self-efficacy theory and the theory of planned behaviour to discriminate adherers and dropouts from structured programs. Journal of Applied Sport Psychology, 5, 195-206.
- Robinson, T.T., & Carron, A.V. (1982). Personal and situational factors associated with dropping out versus maintaining participation in competitive sport. Journal of Sport Psychology, 4, 364-378.
- Rosenberg, E. (1986). Sport voluntary association involvement and happiness among middle-aged and elderly Americans. In B. D. McPherson (Ed.), Sport And Aging (pp45-52). Champaign, IL: Human Kinetics.
- Rudman, W. J. (1986). Life course socioeconomic transitions and sport involvement: A theory of restricted opportunity. In B. D. McPherson (Ed.), Sport And Aging (pp167-183). Champaign, IL: Human Kinetics.
- Scanlan, T. K. & Lewthwaite, R. (1986). Social psychological aspects of competition for male youth sport participants: IV. Predictors of enjoyment. Journal of Sport Psychology, 8, 25-35.
- Scanlan, T.K. & Simons, J.P. (1992). The construct of sport enjoyment. In G.C. Roberts (Ed.), Motivation in Sport and Exercise (pp.199-216). Champaign, IL: Human Kinetics.
- Smale, B. J. & Dupuis, S. L. (1993). The relationship between leisure activity participation and psychological well-being across the lifespan. Journal of Applied Recreational Research, 18(4), 281-300.
- Smith, D. & Theberge, N. (1987). Why people recreate: An overview of research. Champaign, IL: Life Enhancement.
- Smith, MD (1978). Getting involved in sport: Sex differences. In F. Landry and W. Orban (Eds.), Sociology of Sport (pp. 113-119). Miami, FLA: Symposia Specialists.
- Smith, R. E. (1986). Toward a cognitive-affective model of athletic burnout. Journal of Sport Psychology, 8, 36-50.
- Walter, S. D., Hart, L. E., Sutton, J. R., McIntosh, J. M., & Gauld M. (1988). Training habits and injury experience in distance runners: Age- and sex- related factors. Physician and Sportsmedicine, 16(6), 101-104, 109-113.

Weinberg, R. S. (1992). Goal setting and motor performance: A review and critique. In G.C. Roberts (Ed.), Motivation in Sport and Exercise (pp.177-197). Champaign, IL: Human Kinetics.

Weinberg, R. S. & Ragan, J. (1979). Effects of competition, success/failure, and sex on intrinsic motivation. Research Quarterly, 50, 503-510.

Zeigler, R. G. & Michael, R. H. (1985). The Maryland Senior Olympic Games: Challenging Older Athletes. Physician and Sportsmedicine, 13(8), 159-160,163.